

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listing of claims in the application:

### **Listing of Claims:**

Claim 1 (Currently amended).      The method of claim 11, wherein said A method for producing polyunsaturated fatty acids from diatomaceous algae is *Chaetoceros gracilis*, comprising the step of applying at least one growth limiting factor to a diatomaceous *Chaetoceros gracilis* culture at the end of the exponential growth phase, causing growth arrest of said culture and production and stocking by algae in culture of polyunsaturated fatty acids.

Claim 2 (Currently amended).      The method of claim 11, wherein said A method for producing polyunsaturated fatty acids from diatomaceous algae is *Skeletonema costatum* comprising the step of applying at least one growth limiting factor to a *Skeletonema costatum* culture at the end of the exponential growth phase, causing growth arrest of said culture and production and stocking by algae in culture of polyunsaturated fatty acids.

Claim 3 (Currently amended).      The methodprocess of claim 1, wherein the growth-limiting factor is silicate deprivation.

Claim 4 (Currently amended).      The methodprocess of claim 1, wherein the growth-limiting factor is a nutrient deprivation.

Claim 5 (Currently amended).      The methodprocess of claim 1, wherein more than one growth-limiting factor is applied.

Claim 6 (Currently amended).      The methodprocess of claim 1, wherein the growth-limiting factor is applied once the culture has reached a concentration of at least  $10^7$  cells/mL.

Claims 7-10 (Cancelled).

Claim 11 (New). A method for producing polyunsaturated fatty acids from diatomaceous algae, comprising the step of applying at least one growth-limiting factor to a culture of diatomaceous algae at the end of the exponential growth phase, causing growth arrest of said culture and production and stocking by said algae in culture of polyunsaturated fatty acids.